

# SAFESTAT REPORT

*Nevada Highway Patrol*  
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## Overview

The Northern Command is pleased to report a very successful 2003 in the accomplishment of its mission to reduce and mitigate traffic carnage on the highways of Highway Patrol jurisdiction.

The troopers of the Northern Command reduced the total number of crashes by 120, the number of crashes resulting in injury by 88, and the number of people killed on our roadways by 22. These significant reductions were accomplished through the pursuit of an aggressive and locally directed enforcement program, which increased total enforcement activity by 32%.

The impressive gains in enforcement and accompanying reductions in traffic crashes were accomplished with a reduction in available staff hours of 37.4%. The increase in work performed compared to the reduction in staff reveals that the troopers performed more than twice the amount of work for each hour worked.

The National Highway Traffic Safety Administration last published data on the economic impact of motor vehicle crashes in May 2002. The full publication may be found at the NHTSA web site.  
(<http://www.nhtsa.dot.gov/people/economic/EconImpact2000/index.htm>)

Assuming that two vehicles were involved in each of the 120 crashes reduced, that one median level injury was avoided in each of the injury crashes reduced, and using the posted economic impact for each of the 22 fatalities reduced, the crash reductions achieved by the troopers of the Northern Command prevented an economic impact of \$101,716,564 to the highway users of the northwestern Nevada area.

The Northern Command comprises 29% of the statewide Nevada Highway Patrol resources and expends approximately 17 million dollars of the NHP's 58.6 million dollar annual budget. The Northern Command is proud to deliver an economic impact over 5 times greater than its expended budget.

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## CRASH ANALYSIS AND OVERVIEW

	Current 2003		Pervious 2002	% Change
Total Crashes	4164		4284	-2.8
Property Crashes [including commercial vehicles]	2875		2901	-1.0
Injury Crashes [including commercial vehicles]	1241		1329	-6.6
Fatal Crashes [including commercial vehicles]	48		54	-11.1
DUI Crashes [DUI charged]	150		211	-28.9
Total persons killed in fatal crashes	55		77	-28.6
Total drivers killed without seatbelts	27		26	3.8
Total passengers killed without seatbelts	7		15	-53.3
Total drivers killed with seatbelts	11		19	-42.1
Total passengers killed with seatbelts	3		13	-76.9
Total number of commercial vehicle crashes	75		66	13.6
Property crashes involving commercial vehicle	56		40	40.0
Injury crashes involving commercial vehicle	17		19	-10.5
Fatal crashes involving commercial vehicle	2		7	-71.4

Percentage of fatal crashes to total crashes 1.2%

Percentage of DUI crashes to total crashes 3.6%

Percentage of persons killed *without* seatbelts to total persons killed 70.8%

Percentage of commercial vehicle crashes to total crashes 1.8%

### Analysis:

For the calendar year 2003, Northern Command personnel reduced the total number of crashes by 2.8% compared to calendar year 2002, reducing the number of crashes by 120. Property damage crashes this year were reduced by 1% compared to calendar year 2002, reducing the number of property crashes by 26.

More importantly the severity of crashes was reduced by a greater percentage. Injury crashes decreased from 1329 in year 2002, to 1241 in 2003, a reduction of 6.6% or 88 fewer injury crashes this year.

Most impressive was the reduction in both fatal crashes and loss of life. Fatal crashes decreased from 54 in the year 2002, to 48 in 2003, a reduction of 11.1% or 6 fewer fatal crashes this year. Although six fewer fatal crashes may not seem to be a substantial number, only 55 persons lost their lives this year compared to 77 persons in 2002, that's 22 more people alive this year compared to last year.

The reductions in crashes are attributed to several factors. The Northern Command Sergeants were tasked to compile better crash data to identify trends and develop action plans for better enforcement and to reduce crashes. Along with directed enforcement plans and crash data, area sergeants had the needed information to direct personnel and resources into high crash areas. Area sergeants and command staff would review the current statistics and data weekly during Safestat meetings to evaluate the progress and or provide further direction. As this process continued, sergeants began to develop better ideas and plans to obtain the desired results; crash reduction through enforcement. Area sergeants saturated troopers in the known areas of when and where crashes occur provided the motoring public officer presence, enforcement and education to enforce the goals of reducing crashes. Along with the commitment of the field troopers and the process of understanding where crashes occur, when crashes occur and why crashes occur provided the command with the tools to reduce crashes.

This was not easy. Several uncontrollable factors were implemented making it more difficult to achieve our goals. In a reallocation of trooper positions to Las Vegas and troopers assigned to other support duties, the Northern Command traffic staffing levels dropped to 64 positions this year compared to 98 traffic positions last year. The Northern Command had a 37.4% reduction in total hours worked in 2003 compared to 2002. Since March 2003, the interchange of Interstate 80 and U.S. 395, along with several miles of highway stretching in all directions from the interchange, was under major construction with multiple lane restrictions and detours. Off-ramp closures, reduced lanes and regular changes in the directional traffic flow added daily confusion to the motoring public. Regardless of the obstacles the Northern Command Personnel accomplished the goal of crash reduction.

## FIELD ENFORCEMENT ACTIVITY

[Analysis and review of current reporting period, versus same period in previous fiscal year]

	Current 2003		Pervious 2002	% Change
DUI arrests from crashes	150		211	-28.9
DUI arrests <i>prior</i> to crashes	1452		1543	-5.9
Other Arrests	6117		6169	-0.8
Total Persons Arrested (DUI included)	2647		2378	11.3
Speed violations	25417		20860	21.8
Hazardous moving violations	10607		8751	21.2
Occupant restraint violations *	4969		2201	125.8
Total violations ** [above violations included]	68329		51730	32.1
Hazardous moving violations-citations/arrests	142		140	1.4
Other traffic violations-citations/arrests	504		536	-6.0
Total safety inspections [Lvls 1,2,3&6]	5581		4314	29.4
Terminal inspections TIP (Lvl 5)				
Total safety violations -- citation	3950		3394	16.4
Total safety violations -- repair order	7980		6207	28.6
Total vehicles placed "Out of Service"	747		848	-11.9
Total drivers placed "Out of Service"	234		282	-17.0
Total school buses inspected	1606		939	71.0
Total school buses placed "Out of Service"	216		150	44.0
Total trucks weighed	3684		2284	61.3
Total overweight citations	363		371	-2.2
Total dyed fuel inspections***	4556		1130	302.1
Total dyed fuel citations***	23		16	43.8

\* *Seat belt and child restraint*

\*\**Total violations includes Speed, Hazardous, Occupant restraint, Registration, Drivers License, Insurance and Other Categories.*

\*\*\**The dyed fuel inspection criteria changed in January of 2003. All diesel power vehicles were checked from that date forward.*

*From February 2002 to January 2003 the citation count included all tax evasion citation which incorporated I.F.T.A. AND I.R.P. violations.*

### Analysis:

The Northern Command field enforcement statistics show a very strong improvement over last year. Although the arrest categories are slightly down with the largest decrease being a 28.9% reduction in D.U.I. arrests from crashes which is actually desired. D.U.I. crashes were also down the exact percentage, 28.9% as the decrease in D.U.I. arrests from crashes. This information along with a 5.9% reduction in D.U.I. arrests prior to crashes would indicate compliance by the motoring public towards the drinking and drive laws, enforcement and education efforts. The 5.9% decrease in D.U.I.

arrests and the 1% decrease in other arrests are also a result of the loss of positions to Las Vegas which added to the 37.4 decrease in total hour worked.

Northern Command field enforcement activity increased 32.1% compared to 2002. Special attention to crash causing violations were the focus of enforcement efforts to support our goals of reducing crashes and the carnage associated as indicated in the crash analysis section. Speed violations increased 21.8% compared to 2002. Hazardous moving violations increased 21.2% compared to 2002. Occupant restraint violations dramatically increased 125.8% compared to 2002. These strong increases were obtained even with the 37.4% decrease in total hours worked.

The Northern Command Commercial section statistics also show a very strong improvement over last year. Compared to 2002 statistics, Total safety inspections increased 29.4%. Total safety violations-citations increased 16.4%. Total safety violations-repair orders increased 16.4%. Total school buses inspected increased 71%. Total trucks weighed increased 61.3%. Total dyed fuel inspections 302% resulting in an increase of 43.8% citations issued for dyed fuel violations.

## STAFFING AND WORK HOURS

STAFFING	Authorized positions		Current positions staffed		Percentage of authorized	
	Current 2003	Pervious 2002	Current 2003	Pervious 2002	Current 2003	Pervious 2002
Traffic [Tpr. & Sgt.]	64	98	64	98	100.0	100.0
Commercial [Tpr. & Sgt.]	19	21	18	21	90.4	85.7
Commercial CVSI	3	3	3	3	100.0	100.0
<b>WORK HOURS LOST</b>	<b>Current 2003</b>		<b>Pervious 2002</b>	<b>% Change</b>		
Annual leave	12157		12857	-5.4		
Compensatory leave	6292		6830	-7.9		
Sick Leave [personal and family]	10329		15623	-33.9		
Military leave	1166		915	27.4		
Holiday off	1811		1237	46.4		
Training	14009		14787	-5.3		
Administrative leave	679		3382	-79.9		
Leave without pay	0		0	0.0		
Vacancy [173 hours per position*]	0		0	0.0		
<b>Total work hours lost</b>	46445		55631	-16.5		
<b>OVERTIME</b>	<b>Current 2003</b>		<b>Pervious 2002</b>	<b>% Change</b>		
<b>Paid overtime claimed</b>	16598		19619	-15.4		
<b>Compensatory overtime claimed</b>	3396		2676	26.9		
<b>Total overtime hours</b>	19995		22295	-10.3		

<b>TOTAL HOURS WORKED</b>	<b>Current 2003</b>		<b>Pervious 2002</b>	<b>% Change</b>
Number of authorized positions x 173 hours*	132864		203448	-34.7
Work hours lost	46445		55631	-16.5
Overtime	19994		22295	-10.3
<b>Total hours worked</b>	106413		170112	-37.4

\* 173 hours based upon 2080 work hours per year

***Analysis:***

As indicated above, the Northern Command decreased its authorized positions from 98 positions in 2002 to 64 positions in 2003. Although the percentage of authorized positions shows that the Northern Command is at 100% of staffing levels, the difference of the 98 staffed positions from 2002 compared to the 64 staffed positions of 2003 is a 36% decrease in positions.

Even with the 36% reduction in staffing compared to last year, the Northern Command was still able to not only accomplish a reduction in crashes and increase its field enforcement activity, the Northern Command also reduced total hours lost by 16.5% and overtime given by 10.3%.

The Northern Command total hours worked in 2003 was 106413 hours compared to 2002's 170112 hours equates to a 37.4% decrease in hours worked.

## RATIOS – ACCIDENT AND ENFORCEMENT

ACCIDENT RATIOS	Current 2003	Pervious 2002
Ratio of crashes per Traffic position		
Total	65.1:1	43.7:1
Property	44.9:1	29.6:1
Injury	19.4:1	13.6:1
Fatal	0.8:1	0.6:1
DUI	2.3:1	2.2:1
Commercial vehicle	1.2:1	0.7:1
Ratio of deaths per fatal crash	1.1:1	1.4:1
without seatbelts	0.7:1	0.8:1
with seatbelts	0.3:1	0.6:1

FIELD ENFORCEMENT		
Ratio of enforcement per Traffic position		
DUI arrests from crashes	2.3:1	2.2:1
DUI arrests <i>prior</i> to crashes	22.7:1	15.7:1
Other Arrests	95.6:1	62.9:1
Speed violations	397.1:1	212.9:1
Hazardous moving violations	165.7:1	89.3:1
Occupant restraint violations	77.6:1	22.5:1
Total violations	1067.6:1	527.9:1

### Analysis:

The above ratios clearly show the hard work and dedication from the men and women of the Northern Command. With the reduction in staffed positions indicated in the staffing and work hours section, each trooper investigated more crashes compared to 2002. With the reduction in fatal crashes as reported in the crash analysis and overview, each trooper investigated fewer fatal crashes compared to 2003.

A comparison of field enforcement activity to total hours worked shows a closer relationship in activity when comparing 2003 to 2002. Looking at the 68329 total violations written in 2003 accomplished with 106413 hours worked, the ratio of activity to hours worked was .64 per hour. Considering the same of 2002 with 51730 violations written to 170112 hours worked the ratio was .30 per hour.



## ***RATIOS – ACCIDENT AND ENFORCEMENT Cont'd***

### **INSPECTION / ENFORCEMENT RATIOS**

Ratio of inspections and enforcement per Commercial position		Current 2003	Pervious 2002
Total safety inspections	[all levels]	293.7	205.4
Terminal inspections	TIP	0.0	0.0
Total safety violations -- citation		246.9	161.6
Average safety violations per inspection -- citation		0.7	0.8
Total safety violations -- repair order		420.0	295.6
Average safety violations per inspection -- repair order		1.4	1.4
Total vehicles placed "Out of Service"		39.3	40.4
Average vehicles placed OOS per inspection		0.1	0.2
Total drivers placed "Out of Service"		12.3	13.4
Average drivers placed OOS per inspection		0.0	0.1
Total school buses inspected		84.5	44.7
Total school buses placed "Out of Service"		11.4	7.1
Total trucks weighed		230.3	108.8
Total overweight citations		22.7	17.7
Total dyed fuel inspections		284.8	54.0
Total dyed fuel citations		1.4	0.8

\* Commercial sworn only